

M I L O H O O P E R

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EXPERIENCE

Diversified Technologies, Bedford MA • Project Engineer (11/2023) - (06/2024)

- Designed tooling to improve repeatability of high voltage power supply assembly
- System integration and mechanical design for X-Ray pulse generator and gyrotron modulator
- Mechanical drawings and stabilization improvements for galvanic isolation transformer

PVD Products, Wilmington MA • Mechanical Engineer (Contract) (08/2023)

- Designed shielding strategy to protect sputtering chamber from film depositions
- Optimized design of linear translator submodule, reduce cost by 50% and simplified assembly

Mytide Therapeutics, Waltham MA • Mechanical Engineer I & II (08/2021) - (06/2023)

- System layout and design for second-generation peptide manufacturing capital equipment
 - o Mechanical design of process modules
 - Heater modules, injection moldable trays, kinematic coupling interfaces, robot end effectors
 - o Adapt OEM equipment for automation interface (liquid handlers, purification systems)
 - o Thermal and structural simulations of modules and system frame and deck
 - o Determine and document process module requirements
 - o Coordinate as primary liaison between engineering team and design contractor
- Process reliability improvements for first-generation peptide manufacturing operation
 - o Root cause failure analysis, CAPA, verification & validation of new processes and modules
 - o Eliminate most common failure modes through engineering interventions and SOP generation
 - o Design of tooling to assist lab personnel in performing repetitive and error-prone tasks

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA • S.B. Mechanical Engineering (Spring 2021)

SKILLS

- Solidworks CAD, PDM, Drawings; Ansys CFX & Static Structural; Python programming; DFM/A; prototyping and machine tool use (mill/lathe)

LEADERSHIP

- *President, W1XM (MIT Radio Society / UHF Repeater Association)* (Feb 2020 – Jun 2021)
 - o Oversaw successful \$2M fundraising campaign to save MIT's Large Radome and W1XM station

PROJECTS

- Low-cost ward-level 15 LPM 92% purity oxygen generator (Senior Capstone Fall 2020)
- Novel pericardial adhesion barrier concept utilizing NSAID-eluting nanoparticles embedded in spray-on hydrogel to prevent postoperative adhesions (Implants class project, Spring 2020)